6JZ8

Medium-Mu Triode— Beam Power Tube

DUODECAR TYPE

Electrical:

Heater Characteristics and Ratings:		
Voltage (AC or DC)	6.3 ±0.6	volts
Current at heater volts = 6.3	1.200	amp
Peak heater-cathode voltage (Each unit):		
Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200[a] max.	volts
Direct Interelectrode Capacitances (Approx.):[b]		
Triode Unit:		
G_T to P_T	3.6	pf
Input: G_T to (K_T,H)	2.2	pf
Output: P_T to (K_T,H)	0.7	pf
Beam Power Unit:		
$G1_B$ to P_B	0.34	pf
Input: $G1_B$ to (K_B+$G3_B$,$G2_B$,H)	11.0	pf
Output: P_B to (K_B+$G3_B$,$G2_B$,H)	7.0	pf

Mechanical:

Operating Position	Any
Types of Cathodes	Coated Unipotential
Maximum Overall Length	2.375"
Seated Length	1.750" to 2.000"
Diameter	1.062" to 1.188"
Dimensional Outline	See *General Section*
Bulb	T9
Base	Small-Button Duodecar 12-Pin (JEDEC No.E12-70)
Basing Designation for BOTTOM VIEW	12DZ

Pin 1 - Heater
Pin 2 - Triode Plate
Pin 3 - No Internal Connection
Pin 4 - Beam Power Plate
Pin 5 - Same as Pin 3
Pin 6 - Beam Power Grid No.1
Pin 7 - Beam Power Grid No.1
Pin 8 - Beam Power Grid No.2
Pin 9 - Beam Power Cathode, Beam Power Grid No.3
Pin 10 - Triode Grid
Pin 11 - Triode Cathode
Pin 12 - Heater

Characteristics, Class A₁ Amplifier:

	Triode Unit	*Beam Power Tube*		
Plate Voltage	150	45	120	volts
Grid-No.2 Voltage	–	110	110	volts
Grid-No.1 Voltage	-5	0	-8	volts
Amplification Factor	20	–	–	

	Triode Unit	Beam Power Tube		
Plate Resistance (Approx.)	8500	-	1700	ohms
Transconductance	2350	-	1400	μmhos
Plate Current	5.5	122	46	ma
Grid-No.2 Current	-	16.5	3.5	ma
Grid-No.1 Voltage (Approx.)				
for plate μa=10	-11	-	-	volts
100	-	-	-25	volts

VERTICAL-DEFLECTION OSCILLATOR

Triode Unit

Maximum Ratings, *Design-Maximum Values:*

For operation in a 525-line, 30-frame system[c]

DC Plate Voltage	250 max.	volts
Peak Negative Pulse-Grid Voltage	400 max.	volts
Cathode Current:		
Peak	70 max.	ma
Average	20 max.	ma
Plate Dissipation	1 max.	watt

Maximum Circuit Values:

Grid-Circuit Resistance:		
For fixed-bias operation	1 max.	megohm
For cathode-bias operation	2.2 max.	megohms

VERTICAL-DEFLECTION AMPLIFIER

Beam Power Unit

Maximum Ratings, *Design-Maximum Values:*

For operation in a 525-line, 30-frame system[c]

DC Plate Voltage	250 max.	volts
Peak Positive-Pulse Plate Voltage	2000 max.	volts
Grid No.2 Voltage	200 max.	volts
Cathode Current:		
Peak	245 max.	ma
Average	70 max.	ma
Plate Dissipation[d]	7 max.	watts
Grid-No.2 Input	1.8 max.	watts

Maximum Circuit Values:

Grid-Circuit Resistance:		
For fixed-bias operation	1 max.	megohm
For cathode-bias operation	2.2 max.	megohms

[a] The dc component must not exceed 100 volts.

[b] Without external shield.

[c] This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.

[d] In stages operating with grid-leak bias, an adequate cathode-bias resistor or other suitable means is required to protect the tube in the absence of excitation.